

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-210081

(43)Date of publication of application : 02.08.2000

(51)Int.Cl. C12N 15/09  
C12N 1/21  
C12N 9/42  
// (C12N 15/09  
C12R 1:07 )  
(C12N 1/21  
C12R 1:19 )

(21)Application number : 11-013049

(71)Applicant : KAO CORP

(22)Date of filing : 21.01.1999

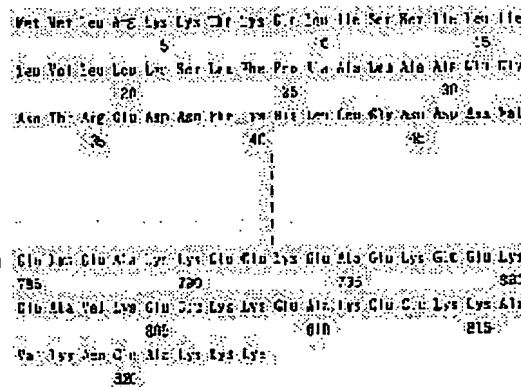
(72)Inventor : HAKAMATA YOSHIHIRO  
HATADA YUJI  
KOBAYASHI TORU

(54) HEAT-RESISTANT ALKALI CELLULASE GENE

**(57)Abstract:**

**PROBLEM TO BE SOLVED:** To obtain the subject new heat-resistant enzyme gene producible a heat-resistant alkali cellulase capable of mixing with a detergent for clothing, etc., in a large amount, comprising a heat-resistant alkali cellulase gene encoding a specific amino acid sequence.

**SOLUTION:** This new heat-resistant alkali cellulose gene encodes an amino acid sequence of the formula or an amino acid sequence wherein one or several amino acids are deleted, substituted or added and is useful for a heat-resistant alkali cellulase capable of formulating with a detergent for clothing, etc., in a large amount. The gene is obtained by separating a genome DNA from *Bacillus* sp.KSM-S237 strain by a normal method, performing a genome PCR by using a partially base sequence of a cellulase gene and cloning.



## LEGAL STATUS

[Date of request for examination]

15.07.2005

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision  
of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]